

LA THANGUE et al
Appl. No. 09/900,147
April 23, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-20 (Canceled).

21. (Currently Amended) A polypeptide consisting essentially of:

(i) a sequence corresponding to residues 163 to 199 of DP-1, said sequence being: KNIRRRVYDALNVLAMNIISEKKEIKWIGLPTNSA (SEQ ID NO:1); or

(ii) a sequence corresponding to residues 163-199 of DP-1, said sequence being: KNIRRRVYDALNVLAMNIISEKKEIKWIGLPTNSA (SEQ ID NO:1), and said sequence further including from 1 to 5 amino acid residues at the N- or C-terminus thereof, where the presence of such residues has no significant effect on the function of the polypeptide.

22. (Currently Amended) A polypeptide fragment of a the polypeptide consisting essentially of:

(i) the sequence: KNIRRRVYDALNVLAMNIISEKKEIKWIGLPTNSA (SEQ ID NO:1), or

LA THANGUE et al
Appl. No. 09/900,147
April 23, 2004

- (ii) the sequence: KNIRRRVYDALNVLAMNISKKEIKWIGLPTNSA (SEQ ID NO:1), said sequence further including from 1 to 5 amino acid residues at the N- or C-terminus thereof, where the presence of such residues has no significant effect on the function of the polypeptide;

which fragment is capable of antagonising the heterodimerisation of a DP protein with an E2F protein.

23. (Currently Amended) A polypeptide fragment according to claim 22 which comprises the sequence NVLMAMNII (SEQ ID NO:2) or ALNVLMA (SEQ ID NO:7).

24. (Currently Amended) A polypeptide fragment according to claim 23 which is selected from the group consisting of:

RRRVYDALNVLAMNISK (SEQ ID NO:3);

NVLMAMNISKKEIKWIG (SEQ ID NO:4);

RVYDALNVLAMNII (SEQ ID NO:5); and

YDALNVLAMNISKKEIKWIGLPTNSA (SEQ ID NO:6).

25. (Currently Amended) A variant of a polypeptide consisting essentially of:

LA THANGUE et al
Appl. No. 09/900,147
April 23, 2004

- (i) a sequence corresponding to residues 163 to 199 of DP-1, said sequence being: KNIRRRVYDALNVLMAMNIISKEKKEIKWIGLPTNSA (SEQ ID NO:1), or
- (ii) a sequence corresponding to residues 163 to 199 of DP-1, said sequence being: KNIRRRVYDALNVLMAMNIISKEKKEIKWIGLPTNSA (SEQ ID NO:1), and said sequence further including from 1 to 5 amino acid residues at the N- or C-terminus thereof, where the presence of such residues has no significant effect on the function of the polypeptide;
- said variant differing from the polypeptide by the presence of from 1 to 5 amino acid substitutions in the sequence of said polypeptide, said variant being capable of antagonising the heterodimerisation of a DP protein with an E2F protein.

26. (Previously Presented) A variant according to claim 25 wherein the substitutions include substitutions selected from one or more residues corresponding to residues 167, 169, 171 and 175 of DP-1.

27. (Currently Amended) A polypeptide which comprises:

(i) a first portion having an amino acid sequence selected from the group consisting of:

- (a) KNIRRRVYDALNVLMAMNIISKEKKEIKWIGLPTNSA (SEQ ID NO:1),
(b) NVLMAMNII (SEQ ID NO:2),

LA THANGUE et al
Appl. No. 09/900,147
April 23, 2004

- (c) RRRVYDALNVLMAMNIISK (SEQ ID NO:3),
- (d) NVLMAMNIISKEKKEIKWIG (SEQ ID NO:4),
- (e) RVYDALNVLMAMNIIS (SEQ ID NO:5),
- (f) YDALNVLMAMNIISKEKKEIKWIGLPTNSA (SEQ ID NO:6), and
- (g) ALNVLMA (SEQ ID NO:7); and

(ii) a second portion, attached to the N- or C-terminus of the first portion, which comprises a sequence of amino acids not naturally contiguous to the first portion in DP-1.

28. (Previously Presented) A polypeptide according to claim 27 wherein the second portion is a membrane translocation sequence.

29. (Previously Presented) A polypeptide according to claim 28 wherein the membrane translocation sequence is the membrane translocation sequence of the *Drosophila melanogaster* antennapedia protein.

30. (Currently Amended) A ~~pharmaceutical~~ composition comprising a polypeptide according to any one of claims 21 to 29 together with a pharmaceutically acceptable diluent or carrier.

LA THANGUE et al

Appl. No. 09/900,147

April 23, 2004

31. (Currently Amended) A pharmaceutical composition according to claim 30 which further comprises a cytostatic or cytotoxic agent.
32. (Previously Presented) A composition formulation comprising a polypeptide of SEQ ID NO:1 in the form of an orally, topically or parenterally administrable form.
33. (Withdrawn) A method of inducing apoptosis in a cell which comprises introducing into said cell an effective amount of a polypeptide according to claim 21.
34. (Withdrawn) A method according to claim 33 wherein said cell is a tumour cell.
35. (Withdrawn) A method according to claim 33 wherein said cell is a cardiovascular cell.
36. (Currently Amended) A product comprising a polypeptide consisting essentially of:
- (i) a sequence corresponding to residues 163 to 199 of DP-1, said sequence being: KNIRRRVYDALNVLAMNIISEKKEIKWIGLPTNSA (SEQ ID NO:1), or
 - (ii) a sequence corresponding to residues 163 to 199 of DP-1, said sequence being: KNIRRRVYDALNVLAMNIISEKKEIKWIGLPTNSA (SEQ ID NO:1), and said sequence further including from 1 to 5 amino acid residues at the N- or C-

LA THANGUE et al
Appl. No. 09/900,147
April 23, 2004

terminus thereof, where the presence of such residues has no significant effect on the
function of the polypeptide;

and a cytostatic or cytotoxic agent as a combined preparation.

37. (Withdrawn) A method of treating uncontrolled proliferation of cells in a human or animal body in need of said treating comprising administering a composition of claim 31 to said human or animal body such that said uncontrolled proliferation of cells is treated.